



West Yorkshire
Fire & Rescue Service

Moortown

Fire Station

Business Case

At a Glance – the Key Points for this Proposal

Proposal:

The introduction of a Fire Response Unit and Resilience Pump at Moortown to replace the 2nd fire appliance and the removal of up to 12 fulltime posts by way of planned retirements.

Key Points:

- Moortown is classed as a high risk area. ¹
- In the 5 year period between 2004/5 and 2009/10 operational demand in this area has reduced by 35% (there has been a reduction of 47% of serious fires). ²
- WYFRS has piloted a new type of vehicle (Fire Response Unit) to deal with smaller fires and incidents to free up fire appliances to respond to more serious emergencies. The pilot has been successful and it is believed that a District based Fire Response Unit will handle in the region of 3,000 calls per year.
- A Resilience Pump would still be located at Moortown fire station for use during spate conditions.
- The revised level of resources at Moortown fire station will bring it in line with other fire stations with similar characteristics.

1. Foreword

- 1.1. This proposal forms one of a number of similar initiatives developed by West Yorkshire Fire and Rescue Service (WYFRS) as part of its plans for the future provision of a highly effective and professional Fire and Rescue Service.
- 1.2. Each proposal is based on sound and comprehensive research, using real data from past performance and predictions of future demand and risk. Multiple sources of analysis have been used, allied to professional judgment and experience, to form the basis of robust business cases for change. The proposals are also reflective of the significant improvements in fire and community safety achieved over the past 10 years and represents a return on the investment made by the Authority on behalf of the public of West Yorkshire.
- 1.3. The proposals also incorporate a number of new and innovative approaches to addressing the challenge of maintaining high standards of performance for an emergency response service, within ever tightening financial constraints. The proposals have been developed as a package of inter related initiatives, representing major capital investment in local communities, whilst at the same time delivering annual recurring savings.

2. Introduction

- 2.1. Moortown fire station was constructed in 1956; it provides the initial emergency response for the residential and commercial areas of Moortown, Chapeltown, Alwoodley, Meanwood and Harewood.
 - The fire station area covers approximately 25 square miles.
 - The population is 88,427.
 - The area incorporates 37,257 dwellings.
 - There are approximately 2150 commercial properties.
- 2.2. The fire station is situated within three miles of other WYFRS stations located at Leeds, Gipton and Cookridge and continues to provide an effective base for our resources; however, as it was constructed over 50 years ago, it is in need of refurbishment.
- 2.3. Moortown is a whole-time fire station and 48 firefighters, working shifts, currently crew two front-line fire appliances providing a total of nine firefighters on duty at any one time in two fire appliances. The operational demand in these areas has reduced by 35% between 2004/5 and 2009/10 (there has been a reduction of 47% of serious fires) yet the provision of operational resources has remained the same over this period of time. ²
- 2.4. The area of Moortown has been classified as being high risk using the WYFRS Risk Matrix methodology (see para 3.3), although the majority of this risk and operational activity is towards the city of Leeds, with the outlying areas being much lower risk. During 2009/10 there were 900 operational incidents within the fire station area including 62 dwelling fires and 35 road traffic collisions. Moortown has a lower number of operational incidents than other stations in Leeds District that have two fire appliances. For example, during the same period there were 1807 operational incidents in the Hunslet area including 77 dwelling fires and 30 road traffic collisions. ¹

- 2.5. The fire appliances based at Moortown were mobilised a total of 1447 times during 2009/10 whilst those based at the neighbouring Leeds and Gipton fire stations received 3696 and 3510 mobilisations respectively. ⁵
- 2.6. On 1st April 2011 a pilot of a new Fire Response Unit commenced in the Leeds District. This unit has been based at Moortown fire station and has been mobilised to automatic fire alarm actuations and smaller fires within a 15 minute travel radius of its base. Initial indications from the pilot are that approximately 3000 incidents are likely to be attended by this unit each year and that 260 of these incidents would be located within the Moortown fire station area. The pilot has proved that the unit will reduce the demand placed on the front line appliances within the area leaving them available to attend more serious life risk emergencies and property fires.

3. Community Impact Assessment

- 3.1. The following statement is taken from the 2011-2015 Community Risk Management Strategy and emphasises WYFRS commitment to deliver an efficient, economic and effective range of services; *“Every area within WYFRS will be considered in order to provide a better service at reduced cost”*.
- 3.2. To enable WYFRS to deliver against this commitment a range of modelling tools have been used to determine the current and predicted levels of risk and activity and the corresponding level of service delivery required, together with their associated costs. These tools have also been used to undertake four separate impact assessments, which seek to:
 - Identify options which minimise reductions in service delivery standards and/or where there is scope for service delivery improvement.
 - Develop measures that will mitigate any reduction of service delivery and where possible maximise opportunities to achieve improvements.
- 3.3. WYFRS has developed a risk matrix which allocates a separate score/rating for hazards within communities. It is possible to use this risk rating in conjunction with the costs for providing services to each fire station to compare the cost of fire and rescue cover for each area. ⁶
- 3.4. The average cost for the Moortown fire station area has been calculated and with the exception of Dewsbury and Keighley it is the most expensive of the WYFRS multi-pump fire stations.
- 3.5. Moortown station has high costs compared to the risk in the area and the efficiencies brought about by this proposal ensure that resource allocation is more aligned with other areas of West Yorkshire.
- 3.6. The proposal is to align operational resources to the current risk profile by reducing the number of whole-time crewed fire appliances from two to one and to maximise the availability of the remaining appliance by sending a Fire Response Unit to less serious incidents and by introducing a Resilience Pump.
- 3.7. Figure 1 (overleaf) illustrates that the operational incident profile for Moortown fire station area is similar to that of other areas with single fire appliance stations and that the station is comparable to them in terms of activity/demand. The provision of a Fire Response Unit in the Leeds District and its deployment to less serious incidents will reduce the demand placed on the Moortown fire appliance and further increase its availability to respond to life and property risk incidents. ⁷

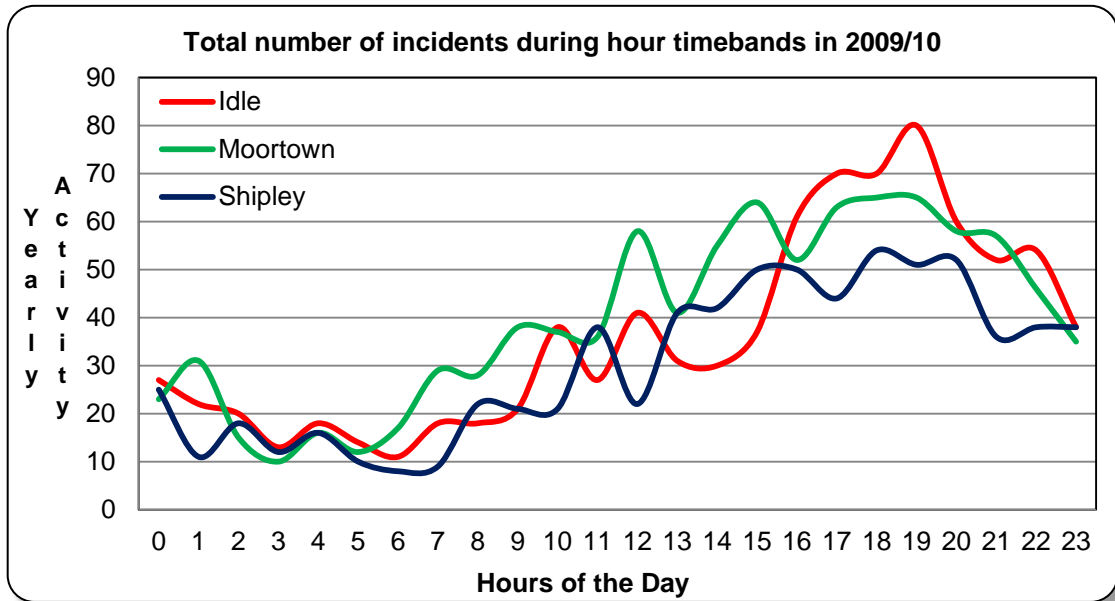


Figure 1

Determining where resources should be located

- 3.8. Independent research has assisted WYFRS in determining the potential impact that the implementation of each proposal would have on fire appliance attendance times to operational incidents. A simulation model has been used to identify the potential impact of implementing a range of options upon fire appliance attendance times to operational incidents.
- 3.9. The most important aspect of emergency response is the time taken for the first fire appliance to arrive at the emergency and WYFRS has set response planning assumptions based on risk and incident types within an area.
- 3.10. This proposal is not predicted to have any significant county-wide impact upon first or second appliance attendance times against the Risk Based Planning Assumptions for life risk incidents. ⁴
- 3.11. Local Impact – Figure 2 identifies that:
 - There is a slight reduction in performance of first fire appliance and second appliance attendance times against the Risk Based Planning Assumptions of 4.7% and 15.6% in Moortown station area. ⁴
 - There is predicted to be an average increase for the first appliance of 17 seconds only, which is due to simultaneous incidents (which are rare in the Moortown area). These increased attendance times represent a very small change and will be mitigated by targeted risk reduction work and the introduction of the Fire Response Unit which will increase the availability of the remaining Moortown fire appliance and fire appliances from surrounding stations. ⁸

1st Appliance Attendance Times

Station Admin. Area	LIFE			PROPERTY			OTHER		
	Base	Model	Impact	Base	Model	Impact	Base	Model	Impact
Gipton	89.4%	89.3%	-0.1%	96.0%	95.9%	-0.1%	98.9%	98.8%	0.0%
Leeds	88.1%	88.0%	-0.1%	96.0%	95.9%	-0.1%	98.9%	98.9%	0.0%
Moortown	91.9%	87.2%	-4.7%	97.3%	95.6%	-1.7%	98.6%	98.0%	-0.6%
Cookridge	98.9%	96.9%	-2.0%	99.9%	98.9%	-0.9%	99.3%	99.2%	-0.2%
Stanks	96.4%	96.1%	-0.3%	99.1%	98.9%	-0.2%	99.2%	99.1%	-0.1%
Wetherby	86.7%	86.5%	-0.2%	91.4%	91.3%	-0.1%	95.5%	95.4%	-0.1%

2nd Appliance Attendance Times

Station Admin. Area	LIFE			PROPERTY			OTHER		
	Base	Model	Impact	Base	Model	Impact	Base	Model	Impact
Gipton	92.6%	92.3%	-0.3%	95.6%	95.5%	-0.1%	99.4%	99.3%	0.0%
Leeds	93.8%	93.3%	-0.5%	98.4%	98.3%	-0.1%	99.1%	99.1%	0.0%
Moortown	91.5%	75.8%	-15.6%	94.4%	91.1%	-3.3%	99.4%	98.9%	-0.6%
Cookridge	94.8%	91.1%	-3.7%	94.9%	93.7%	-1.2%	98.5%	98.3%	-0.2%
Stanks	93.8%	92.7%	-1.1%	99.7%	99.4%	-0.3%	99.6%	99.6%	-0.1%
Wetherby	47.9%	46.6%	-1.3%	73.2%	72.5%	-0.7%	91.1%	90.8%	-0.3%

Figure 2 ⁴

- 3.12. The simulation model has been used to identify the associated performance impact from removing a fire appliance from each WYFRS fire station provided with two appliances. ⁴
- 3.13. Table 1 below illustrates the local impact if each second fire appliance was removed individually from each of West Yorkshire's two appliance stations: ⁴

Table 1 - Impact of Removing Second Fire Appliances

Station	% increase in 1 st fire appliance attendance	% increase in 2 nd fire appliance attendance
Bradford	8.8	11.5
Dewsbury	5.0	33.1
Fairweather Green	6.0	21.8
Gipton	8.4	15.9
Halifax	6.7	41.2
Huddersfield	7.8	53.3
Hunslet	5.9	13.8
Keighley	5.6	49.2
Leeds	7.2	11.8
Moortown	4.7	15.6
Odsal	4.5	21.6
Stanningley	7.5	45.4
Wakefield	6.5	56.5

- 3.14. The local impact of removing a second appliance from Moortown is the lowest of all of the options considered.
- 3.15. Certain stations have specialised vehicles and equipment which are utilised infrequently and WYFRS therefore share crewing with the fire appliances at those stations. This is referred to as "Dual crewing" and these arrangements are currently being operated at Dewsbury, Hunslet, Odsal and Stanningley. WYFRS have also introduced appliances with combined functions (a normal fire engine combined with an aerial high reach appliance, known as Combined Aerial Rescue Pumps or CARP's). WYFRS currently operate CARP's at Halifax and Wakefield and have proposals to introduce these at Huddersfield and Bradford. The value of the two

appliances at all these stations is therefore greater than at Moortown where no such arrangements are in place.

- 3.16. Other fire stations that have dedicated crews for two fire appliances (i.e. no dual crewing arrangements are in place) are Gipton, Fairweather Green and Keighley and it can be seen from Table 1 that removal of the second appliance at these stations represents greater risk than Moortown.

Fire Service Emergency Cover (FSEC) toolkit

- 3.17. The FSEC software toolkit has been developed by Central Government (Department for Communities and Local Government) for use by Fire and Rescue Authorities in determining appropriate fire and emergency cover. It enables the relationship between dwelling fire casualties and the social demographics of small areas in the county (super output areas) and the location of response resources (fire stations) to be determined. Four demographic benchmarks are used to demonstrate this relationship and to represent predicted risk associated with a range of appliance response times.
- 3.18. Analysis of FSEC outputs (which is a cost-benefit analysis with regard to property and life risk) predicts that basing one fire appliance at Moortown fire station will have a very slight negative impact on the predicted level of risk (this is mainly in relation to road traffic collisions).⁹
- 3.19. Improvements in risk reduction activities and the introduction of the Fire Response Unit to improve the availability of the Moortown fire appliance for life and property incidents will offset this slight predicted increase in risk.

Phoenix/Active toolkit

- 3.20. The Phoenix/Active software tool is another analysis tool used to identify the impact of any changes of the Risk Based Planning Assumptions referred to above. Phoenix predicts that locally there is only likely to be a very small adverse impact on the response performance and the county wide impact will be negligible.¹⁰

Predicted Risk Level

- 3.21. This proposal does not have any impact on the predicted risk levels in Moortown station area.¹

Risk Reduction

- 3.22. During 2010 a comprehensive and integrated framework for service delivery was developed, this is outlined in the Community Risk Management Strategy 2011-15. This was implemented in 2011 and is proving to be a very effective means for targeting resources and reducing risk and is an essential method for reducing negative impact of changes in fire cover. Fundamental to this approach is the introduction of District and Local Area Risk Reduction Teams.
- 3.23. The continued provision of a fire station in North Leeds will enable targeted community risk reduction activities to continue in a prioritised manner.

4. Firefighter Safety Impact Assessment

Risk and firefighters gathering risk information about premises.

- 4.1. One of WYFRS's risk indicators is dedicated solely to "Firefighter safety" and has taken cognisance of the following statement within the 2009 WYFRS Firefighter Safety Strategy; *"Effective gathering and analysis of information prior to operational incident attendance is of critical importance"*.
- 4.2. The firefighter safety indicator captures the following information to reflect this statement:
 - The predominance of specified commercial properties within each fire station area.
 - The availability of associated risk information held for commercial properties.
 - The predominance of high-rise properties within each fire station area.
- 4.3. The swift arrival of supporting resources can have a beneficial impact upon the safe management of operational incidents and is the rationale for this information being captured by way of the indicator.
- 4.4. Following the 2009/10 evaluation process the firefighter safety risk banding for Moortown was determined as being low. ¹
- 4.5. Targets for gathering operational risk information will lead to a gradual improvement in the availability of operational risk information which in turn will reduce the risks presented to firefighters from hazards within commercial properties.
- 4.6. The targets for operational risk information for the 2012/13 IRMP Action Plan will be set in a proportionate manner, with areas of higher risk levels receiving a greater number of operational risk information inspections.
- 4.7. Approximately one third of commercial properties within the Moortown area have been made subject to an operational risk inspection and it is anticipated that the availability of risk information to firefighters via the Mobile Data Terminals (MDT's) on all fire appliances will be considerably improved by 2012. ¹¹

The arrival times of the 2nd fire appliance

- 4.8. The demand for a second appliance in the Moortown area is low in comparison to other areas of the county provided with two appliances. ¹²
- 4.9. Currently the North Leeds area is provided with two fire appliances at Moortown, Gipton and Leeds and with one at Cookridge, Wetherby and Stanks. The deployment of a Fire Response Unit to the majority (2500-3000) of minor incidents in Leeds and North Leeds will enable fire appliances to stay available for more serious incidents. The deployment of this unit will lead to an increased availability of fire appliances in the Leeds District and improved response times for second fire appliances attending incidents in the Moortown fire station area.
- 4.10. Due to the improved availability of operational risk information, the relatively low occurrence of multi-pump incidents and the provision of a Fire Response Unit the

predicted risk posed to firefighters from slightly extended arrival times (a few seconds) for the second appliance is very low.

5. Equality Impact Assessment

- 5.1. The new Public Sector Equality Duty places a requirement on the organisation to ensure where changes affect service delivery to the community or employees, WYFRS assesses those changes for any possible negative impact on equality. In this context equality refers to the protected characteristics in the Equality Act 2010, race, gender, disability, religion and belief, sexual orientation, age, gender-reassignment, maternity and pregnancy and marriage and civil partnerships.
- 5.2. This Equality Impact Assessment has been completed by using information drawn from the Office for National Statistics in regard to the Moortown area and has been used to determine whether the removal of a fire appliance from the area will lead to an adverse or disproportionate impact upon any sections of the population. ¹³
- 5.3. A 2008 report provided by the Communities and Local Government (CLG) department analysed the correlation between dwelling fires and socio demographics. This report has been used to provide an indication of whether any particular groups within the Moortown population are at heightened risk from fire. The report indicates that sick/disabled persons, lone pensioners and Black Caribbean/African groups were associated with a greater incidence of dwelling fires.
- 5.4. Moortown's population was estimated as being 88,427 during 2001 with a fairly equal gender distribution. The predominant ethnic group within the population is White British (78.4%) with Asian/Indian representing the next major group (7.5%), followed by Pakistani (3.6%), Black British/Caribbean (1.1%) and Chinese (1%).
- 5.5. Approximately 59% of the resident Moortown population are Christians, 7% are Jewish, 6% are Sikhs, and 4% are Muslims and 21% declared no religious preference. In 2001, 22% of the population was aged over 60 and 18% of the population had a limiting long-term illness.
- 5.6. The WYFRS Prevention strategy contained within the 2011-2015 Community Risk Management Strategy emphasises that risk reduction activities will be focussed toward areas of the county identified as being at higher risk from dwelling fires, deliberate fire setting and road traffic collisions and that an appropriate and proportionate allocation of resources will be made available for District Risk Reduction Teams (DRRT) to achieve this.
- 5.7. It is anticipated that the reduction in the number of firefighters at Moortown fire station will have a small impact upon the amount of risk reduction work which the station will be able to deliver. This reduced capacity will be off-set by the targeted risk reduction initiatives being co-ordinated by the Leeds District Risk Reduction Team and the Inner City East Local Area Risk Reduction Team.
- 5.8. The Fire Response Unit will need to be available when most fires occur, which necessitates crewing the vehicle into late evening. This duty system will be different from anything currently in operation in WYFRS and negotiations are currently taking place with representative bodies. An Equality Impact Assessment will be undertaken as part of this process.

- 5.9. Notwithstanding the requirement to finalise the EIA for the new duty system, the findings of the overall Equality Impact Assessment are that this proposal will not lead to any significant changes in the delivery of WYFRS's services within the area and will not adversely or disproportionately impact upon any group or individual by virtue of, race, gender, disability, religion and belief, sexual orientation, age, gender-reassignment, maternity and pregnancy and marriage and civil partnerships.

6. Organisational Impact Assessment

Efficiencies

- 6.1. This proposal will enable WYFRS to manage some of the financial deficit caused by reduced government funding.
- 6.2. The proposal has considered the less than optimal positioning of existing fire appliances together with the reduced operational demand and the associated costs. The most cost effective solution is to replace the second fire appliance at Moortown with a Fire Response Unit and to introduce a Resilience Pump.
- 6.3. This can be achieved by reducing the staffing level at Moortown by between 8 and 12 posts, which will be done by way of planned retirements.
- 6.4. The removal of these posts to coincide with forecasted retirements will achieve significant revenue savings.
- 6.5. There will be other associated savings delivered by this proposal, including:
- Reduction in Personal Protective Equipment requirements.
 - Reduced consumables and fire station maintenance costs.

Impact across West Yorkshire and Resilience

- 6.6. There is a small reduction in performance of first appliance attendance times against the Risk Based Planning Assumptions across West Yorkshire for all incidents of 0.1% and for the second fire of 0.1%. The provision of a Fire Response Unit to deal with small fires and to attend certain fire alarms will improve availability of front line fire engines thereby offsetting this negative impact. ⁴
- 6.7. In order to maintain WYFRS's operational resilience, a second fire appliance will continue to be located at Moortown fire station as a Resilience Pump. This Resilience Pump will not be continually staffed but will be activated during periods of anticipated or unexpected/unplanned high levels of operational activity and in response to significant events which could affect emergency response; such as wide area flooding, bonfire night, periods of bad weather or when very large incidents are ongoing.
- 6.8. The use of Resilience Pumps supports WYFRS strategy of staffing an appropriate number of fire appliances for normal levels of activity and having the ability to add further fire appliances when required. This strategy is important in maintaining an excellent fire and rescue service whilst meeting the efficiencies required by the reduction in public service funding.

7. Conclusions

- 7.1. The fire appliances based at Moortown have relatively low operational activity levels and the operational demand in the area has reduced by 35% between 2004/5 and 2009/10 (there has been a reduction of 47% of serious fires). As a consequence the associated resources are currently being under-utilised.²
- 7.2. The provision of two fire appliances in this area is disproportionate to the level of risk and on a comparative cost basis Moortown is the second most expensive multi-pump fire station in West Yorkshire.
- 7.3. It is expected that the targets established for gathering safety critical risk information, will mitigate any impact upon the safety of WYFRS firefighters resulting from the removal of a fire appliance from this area.
- 7.4. Although the removal of a fire appliance will reduce the capacity of Moortown fire station to undertake risk reduction work the targeted risk reduction initiatives co-ordinated by the District Risk Reduction Team and the Inner City East Local Area Risk Reduction Team will enable the delivery of improved services to more vulnerable groups.
- 7.5. The removal of a fire appliance from Moortown and the provision of a Fire Response Unit will deliver significant efficiency savings whilst maintaining a high level of service delivery which is more aligned to risk and operational activity levels.
- 7.6. The introduction of a Resilience Pump will maintain two appliances in the area and enable WYFRS to meet its legal and local obligations in planning for significant operational events.

8. References

1. WYFRS (2010/11); *Risk Matrix - Base Year*
2. WYFRS (2004/05, 2009/10); *Incident Records*
3. WYFRS (2009/10); *Retained Availability Records*
4. ORH Limited (2011); *Resource Optimisation Study – Final Results Report*
5. WYFRS (2009/10); *Appliance Activity Records*
6. WYFRS (2009/10); *Cost per Point of Risk – Chart and Data*
7. WYFRS (2009/10); *Incident Records*
8. ORH Limited (2011); *Resource Optimisation Study – Progress Report 2 – Initial Modelling*
9. WYFRS (2011); *FSEC Summary Report*
10. WYFRS (2011); *Phoenix Active Summary Report*
11. WYFRS (2011); *Premises Record Database*
12. WYFRS (2009/10); *Incident Records – Multi-pump activity*
13. <http://www.ons.gov.uk/> (Accessed August 2011)
14. WYFRS (20011); *Current pump coverage*